SECOND DRAFT ALTERNATIVES FOR ANALYSIS

CONTENTS:

(NOTE: Wording highlighted in red indicates changes made by the Council during the meeting.)

What happened at the June 2002 Council meeting?

During its June 4-12, 2002 meeting, the North Pacific Fishery Management Council received a report from NMFS staff on the refinements made to the April 2002 suite of programmatic alternatives and the results of several meetings held with public stakeholder groups. The Council also reviewed written comments from the public and received oral testimony from a number of representatives of fishing industry and environmental organizations. Following a review of all this information, the Council modified, through a series of motions, the wording of alternative policy language as well as details of the alternatives' associated FMP frameworks. The Council completed its June action by adopting the suite of alternatives for analysis.

What exactly are the alternatives?

The Council has developed four policy alternatives ranging from relatively less to more environmentally precautionary. Each policy alternative is comprised of a set of FMP policy goal and objective statements. Additionally, except for the status quo alternative (i.e., the existing or current policy), each new policy alternative includes two illustrative FMPs that serve as bookends to a management framework consistent with that policy. Each FMP bookend will be analyzed separately and will proxy a range of future management actions. The bookend framework will indicate the range of environmental effects of that policy. The bookends are not intended to be stand alone alternatives. Instead, once the Council chooses a policy-level alternative (and accompanying bookends), it will be committing, to the extent practicable, to devise and implement a fisheries management plan consistent with that chosen alternative. The bookends therefore establish a range of management tools from which the Council will choose when revising the FMP as well as predicting the range of potential environmental effects from the use of those management tools. This alternative structure recognizes that the resource being managed as well as the marine ecosystem is quite dynamic in nature and only partially understood. Providing a range of management tools and their potential effects for each policy alternative is an attempt to take into account the dynamic nature of the fisheries as a whole and to provide enough management regime flexibility in each alternative to allow the decision-makers to base decisions on the best available science.

So, the alternatives being considered are different management policies?

Yes. Each alternative contains a management approach statement and a suite of comprehensive policy goals and objectives. At the end of this process, the Council and NMFS will determine its preferred policy for managing the Alaska groundfish fisheries in the future. The Council will

formally amend the Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish FMPs to incorporate any change in policy.

What happens next?

With this action, NMFS will begin to analyze these alternatives and prepare a revised Alaska Groundfish Fisheries Draft Programmatic Supplemental Environmental Impact Statement (PSEIS) for public review. Prior to releasing the revised draft PSEIS, the Council intends to select a preliminary preferred alternative. Such an action will provide the public with an indication of the Council's proposed policy with regard to management of the Bering Sea/Aleutian Island and Gulf of Alaska groundfish fisheries. Including the preliminary preferred alternative in the draft PSEIS will allow the public to comment on that alternative in addition to commenting on the document as a whole. Following public review, the Council and NMFS will consider the public comments and finalize the preferred alternative, making changes to the alternative as necessary. This final recommendation from the Council to NMFS will be included in the final PSEIS document. The final PSEIS will be available for public review prior to NMFS making its final decision on the future management of the Alaska groundfish fisheries. This final decision will be published in a Record of Decision document.

What role do the FMP frameworks have in the analysis?

The FMP bookends are examples of management plans that are driven wholly by the policy statements. They illustrate different ways the groundfish fisheries can be managed and the range of environmental effects that can be expected from the implementation of a policy alternative. The analysis of the FMP frameworks will be included in the Council's and NMFS's final decision, and will be used to define a range of management actions that will be pursued following completion of the PSEIS.

The "no fishing" scenario received a lot of attention at the Council meeting. Is it truly reasonable as a FMP bookend?

Yes. During the June Council meeting in Dutch Harbor, it became apparent through comments made by the public and Council members that a misconception exists as to the nature of this FMP scenario. Policy alternative 4 emphasizes an extremely precautionary approach to management of fisheries when faced with scientific uncertainty about the impacts of those fisheries on the physical and biological environment. The closure of the fisheries is certainly an approach that can be taken until more is known about fishery effects and the environment (although it ignores any potentially positive socio-economic effects of the fisheries). FMP bookend 4.2, however, does not initiate a permanent prohibition on fishing. Instead it represents an extremely precautionary approach to fishery management wherein individual fisheries are closed only until sufficient scientific information is obtained to indicate that a fishery has no appreciable negative effects on the physical and biological environment. Once the effects of a fishery have been determined, it will be opened at a level consistent with ensuring that the resource and environment will not be negatively impacted.

How will the Council select its preliminary preferred alternative?

Prior to completing the revised draft PSEIS and releasing it to public review, NMFS staff will present to the Council a report summarizing the results of its analysis of the programmatic alternatives. The report will contain information on the predicted environmental effects for each alternative. Results from this analysis will serve as the basis for the Council's selection of a preliminary preferred alternative for public review. The Council may choose to select one of the four programmatic alternatives in its entirety, or they could choose to construct a new alternative. Each alternative to the status quo includes a policy section containing a number of program goals and objectives, and an FMP framework containing a range of FMP components and tool applications (such as TAC setting, Marine Protected Areas, Steller sea lion measures, Bycatch Restrictions, etc.). Together, these provide the Council and the public with a variety of management options at both the policy level as well as at the management tool level, that may be chosen in whole or in combination. The Council will identify its preliminary preferred alternative at a future meeting and the public will have an opportunity to comment on the selection as part of the revised draft PSEIS.

Can the public recommend a different preferred alternative?

Yes. By restructuring the PSEIS in this manner, the public is afforded the full opportunity to review all of the programmatic alternatives including the Council's preliminary preferred alternative. The public will have the opportunity to voice their support for any of the alternatives. They will also have access to the same information in the draft PSEIS to develop and submit their own preferred alternative should it be different from the Council's.

ALTERNATIVE 1(a)

Current BSAI Policy Statement (same as original 1979 FMP)

Section 3.2 of Bering Sea/Aleutian Islands FMP Goals for Management Plan

The North Pacific Fishery Management Council has determined that all its fishery management plans should, in order to meet the requirements of its constituency, the resources and FCMA, achieve the following goals:

1. Promote conservation while providing for the optimum yield from the Region's groundfish resource in terms of: providing the greatest overall benefit to the nation with particular reference to food production and recreational opportunities; avoiding irreversible or long-term adverse effects on the fishery resources and the marine environment; and insuring availability of a multiplicity of options with respect to the future uses of these resources.
2. Promote, where possible, efficient use of the fishery resources but not solely for economic purposes.
3. Promote fair and equitable allocation of identified available resources in a manner such that no particular group acquires an excessive share of the privileges.
4. Base the plan on the best scientific information available.

In accomplishing these broad objectives a number of secondary objectives have been considered:

1. Conservation and management measures have taken into account the unpredictable characteristics of future resource availability and socioeconomic factors influencing the viability of the industry.

2. Where possible, individual stocks of fish are managed as a unit throughout their range, but such management is in due consideration of other impacted resources.

3. In such instances when stocks have declined to a level below that capable of producing MSY, management measures promote the rebuilding the stocks. In considering the rate of rebuilding, factors other than biological considerations have been taken into account.

4. Management measures, while promoting efficiency where practicable, are designed to avoid disruption of existing social and economic structures where fisheries appear to be operating in reasonable conformance with the Act and have evolved over a period of years as reflected in community characteristics, processing capability, fleet size and distribution. These systems and the resources upon which they are based are not static, but change in the existing regulatory regime should be the result of considered action based on data and public input.

5. Management measures should contain a margin of safety in recommending allowable biological catches when the quality of information concerning the resource and ecosystem is questionable. Management plans should provide for accessing biological and socioeconomic data in such instances where the information base is inadequate to effectively establish the biological parameters of the resource or to reasonably establish optimum yield. This plan has identified information and research required for further plan development.

6. Fishing strategy has been designed in such a manner as to have minimal impact on other fisheries and the environment.

Key on page 10

Current GOA Policy Statement (adopted through Amendment 14 in 1985)

Section 2.1 of GOA FMP Goals and Objectives for Management of Gulf Groundfish Fisheries

The North Pacific Fishery Management Council (NPFMC or the Council) is committed to develop long-range plans for managing the Gulf of Alaska groundfish fisheries that will promote a stable planning environment for the seafood industry and will maintain the health of the resource and the environment for the seafood industry and will maintain the health of the resource and the environment. In developing allocations and harvesting systems, the Council will give overriding considerations to maximizing economic benefits to the United States. Such management will:

1. Conform to the National Standards and to the NPFMC Comprehensive Fishery Management Goals.
2. Be designed to assure that to the extent possible:
    1. Commercial, recreational, and subsistence benefits may be obtained on a continuing basis.
    2. Minimize the chances of irreversible or long-term adverse effects on fishery resources and the marine environment.
    3. A multiplicity of options will be available with respect to future use of the resources.
    4. Regulations will be long-term and stable with changes kept to a minimum.

Principal Management Goal. Groundfish resources of the Gulf of Alaska will be managed to maximize positive economic benefits to the United States, consistent with resource stewardship responsibilities for the continuing welfare of the Gulf of Alaska living marine resources. Economics benefits include, but are not limited to, profits, benefits to consumers, income and employment.

To accomplish this goal, a number of objectives will be considered:

Objective 1: The Council will establish annual harvest guidelines, within biological constraints, for each groundfish fishery and mix of species taken in that fishery.

Objective 2: In its management process, including the setting of annual harvest guidelines, the Council will account for all fishery-related removals by all gear types for each groundfish species, sport fishery and subsistence catches, as well as by directed fisheries.

Objective 3: The Council will manage fisheries to minimize waste by:

1. Developing approaches to treating bycatches other than as a prohibited species. Any system adopted must address the problems of covert targeting and enforcement.
2. Developing management measures that encourage the use of gear and fishing techniques that minimize discards.

Objective 4: The Council will manage groundfish resources of the Gulf of Alaska to stimulate development of fully domestic fishery operations.

Objective 5: The Council will develop measures to control effort in a fishery, including systems to convert the common property resource to private property, but only when requested to do so by industry.

Objective 6: Rebuilding stocks to commercial or historic levels will be undertaken only if the benefits to the United States can be predicted after evaluating the associated costs and benefits and the impacts on related fisheries.

Objective 7: Population thresholds will be established for economically viable species complexes under Council management on the basis of the best scientific information, and acceptable biological catches (ABCs) will be established as defined in this document. If population estimates drop below these thresholds, ABC will be set to reflect necessary rebuilding as determined in Objective 6.

ALTERNATIVE 1(b)

Management Approach

Continue to work toward the goals of maintaining sustainable fisheries, protecting threatened and endangered species, and to protect, conserve, and restore living marine resource habitat through existing institutions and processes. Continue to manage the groundfish fisheries through the current risk averse conservation and management program that is based on a conservative harvest strategy. Under this management strategy, fishery impacts to the environment are mitigated as scientific evidence indicates that the fishery is adversely impacting the ecosystem. Management decisions will utilize the best scientific information available; the management process will be adaptive to new information and reactive to new environmental issues; incorporate and apply ecosystem-based management principles; consider the impact of fishing on predator-prey, habitat, and other important ecological relationships; maintain the statutorily mandated programs to reduce excess capacity and the race-for-fish; draw upon federal, state, and academic capabilities in carrying out research, administration, management, and enforcement; and consider the effects of fishing and encourage the development of practical measures that minimize bycatch and adverse effects of essential fishing habitat. This strategy is based on the assumption that fishing does produce some adverse impact on the environment and that as these impacts become known, mitigation measures are developed and FMP amendments are implemented. Issues will be addressed as they ripen and are identified through Council staff tasking and research priorities. The Council will continue to use the National Standards and other applicable law as its guide in practicing adaptive management and responsible decision making and to consistently amend FMPs accordingly. To meet the goal of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Adopt conservative harvest levels for single species fisheries and specify Optimum Yield (OY). [M, MSA-NS1; NAS SF]
2. Continue to use existing OY cap for BSAI and GOA groundfish fisheries.
3. Provide for adaptive management by continuing to specify OY as a range. [M, MSA to set OY; D to set as range]

Preserve Food Web:

4. Incorporate ecosystem considerations into fishery management decisions. [NAS SF]
5. Continue to protect the integrity of the food web through limits on harvest of forage species.
6. Develop a conceptual model of the food web. [EPAP]

Reduce and Avoid Bycatch:

7. Continue current incidental catch and bycatch management program.
8. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.
9. Continue to account for bycatch mortality in monitoring annual TACs.
10. Control the bycatch of prohibited species through PSC limits.
11. Continue program to require full utilization of target species.
12. Continue to respond to evidence of population declines by closing areas and implementing gear and seasonal restrictions in affected areas.

Avoid Impacts to Seabirds and Marine Mammals:

13. Continue to cooperate with USFWS to protect ESA-listed and other seabird species. [M, ESA - listed species; D, other species]
14. Maintain current protection measures in order to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

Reduce and Avoid Impacts to Habitat:

15. Respond to new scientific information regarding areas of critical habitat by closing those regions to all fishing (i.e., no-take marine reserves such as Sitka Pinnacles).
16. Evaluate the impacts of trawl gear on habitat through the stepwise implementation of a comprehensive research plan, to determine appropriate habitat protection measures.
17. Continue to evaluate candidate areas for marine protected areas. [EO 13158]

Allocation Issues:

18. Continue to reduce excess fishing capacity, overcapitalization and the adverse effects of the race for fish. [M, SFA to continue AFA Pollock cooperative program; D, other programs; NAS SF]
19. Provide economic and community stability by maintaining current allocation percentages to harvesting and processing sectors.

Increase Alaska Native Consultation:

20. Continue to incorporate traditional knowledge in fishery management.
21. Continue current levels of Alaska Native participation and consultation in fishery management. [EO 13084]

Data Quality, Monitoring and Enforcement:

22. Continue the existing reporting requirements and Observer Program to provide catch estimates and biological information.
23. Continue on-going effort to improve community and regional economic impact assessments.
24. Increase the quality of monitoring data through improved technological means.

ALTERNATIVE 2

Management Approach

Amend the current FMPs to establish a more aggressive harvest strategy while still preventing overfishing of target groundfish stocks. The goal would be to maximize biological and economic yield from the resource. Such a management approach will be based on the best scientific information available, take into account individual stock and ecosystem variability; involve and be responsive to the needs and interests of affected states and citizens; continue to work with state and federal agencies to protect threatened and endangered species; maintain the statutorily mandated programs to reduce excess capacity and the race-for-fish; draw upon federal, state, and academic capabilities in carrying out research, administration, management, and enforcement; and consider the effects of fishing and encourage the development of practical measures that minimize bycatch and adverse effects of essential fishing habitat. This strategy is based on the assumption that fishing does not have an adverse impact on the environment except in specific cases as noted. To meet the goal of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Prevent overfishing by setting an Optimum Yield (OY) cap at the sum of OFL or the sum of the ABCs for each species.
2. Provide for adaptive management by continuing to specify OY as a range. [M - MSA to set OY; D - to set as range]

Preserve Food Web:

(none)

Reduce and Avoid Bycatch:

3. Monitor the bycatch of prohibited species and adjust or eliminate PSC limits.
4. Manage incidental catch and bycatch through closure areas for selected gear types.

Avoid Impacts to Seabirds and Marine Mammals:

6. Maintain current protection measures to protect ESA-listed seabird species. [M, ESA]
7. Maintain current protection measures to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

Reduce and Avoid Impacts to Habitat:

8. Evaluate the impacts of trawl gear on habitat through the implementation of the existing research plan, identify EFH, and determine appropriate habitat protection measures.
9. Continue to evaluate candidate areas for marine protected areas. [EO 13158]

Allocation Issues:

10. Maintain AFA and CDQ program as authorized by MSA. [M, SFA to continue AFA Pollock cooperative program; D other programs; NAS SF]

Increase Alaska Native Consultation:

11. Continue to incorporate traditional knowledge in fishery management.
12. Continue current levels of Alaska Native participation and consultation in fishery management.

Data Quality, Monitoring and Enforcement:

13. Continue the existing reporting requirements to provide catch estimates and biological information.
14. Continue on-going effort to improve community and regional economic impact assessments.
15. Consider repealing the Observer Program.

ALTERNATIVE 3

Management Approach

Accelerate precautionary management measures through community or rights-based management, ecosystem-based management principles, and where appropriate and practicable, increased habitat protection and additional bycatch constraints. This policy objective seeks to provide sound conservation of the living marine resources; provide socially and economically viable fisheries and fishing communities, minimize human caused threats to protected species; maintain a healthy marine resource habitat; and incorporate ecosystem-based considerations into management decisions. This policy recognizes the need to balance many competing uses of marine resources and different social and economic goals for fishery management. This policy will utilize and improve upon existing processes to involve a broad range of the public in decisionmaking. Further, these objectives seek to maintain the balanced goals of the National Standards and other provisions of the MSA as well as the requirements of other applicable law, all as based on the best scientific information available. This policy takes into account the National Academy of Science's Sustainable Fisheries Policy Recommendations. Under this approach, additional conservation and management measures will be taken as necessary to respond to social, economic or conservation needs, or if scientific evidence indicates that the fishery is negatively impacting the environment.

Prevent Overfishing:

1. Adopt conservative harvest levels for multi-species and single species fisheries.
2. Provide for adaptive management. Continue to specify OY as a range or a formula. [M - MSA to set OY; D - to set as range]
3. Initiate a scientific review of the adequacy of F_{40} and implement improvements accordingly. [D, MSA]
4. Continue to collect scientific information and improve upon MSSTs including obtaining biological information necessary to move Tier 4 species into Tiers 1-3 in order to obtain MSSTs.

Preserve Food Web:

5. Incorporate ecosystem-based considerations into fishery management decisions. [NAS SF]
6. Develop indices of ecosystem health as targets for management. [EPAP]
7. Improve the procedure to adjust ABCs as necessary to account for uncertainty and ecosystem factors such as predator-prey relationships and regime shifts.
8. Initiate a research program to identify the habitat needs of different species that represent the significant food web. [EPAP]

Reduce and Avoid Bycatch:

9. Continue and improve current incidental catch and bycatch management program.
10. Developing incentive programs for incidental catch and bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.
11. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.
12. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce discards.

Avoid Impacts to Seabirds and Marine Mammals:

13. Continue to cooperate with USFWS to protect ESA-listed and other seabird species. [M, ESA - listed species; D, other species]
14. Initiate joint research program with USFWS to evaluate current population estimates for all seabird species that interact with the groundfish fisheries.
15. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

Key on page 10

16. Encourage programs to review status of other marine mammal stocks and fishing interactions (right whales, sea otters, etc.) and develop fishery management measures as appropriate.

Reduce and Avoid Impacts to Habitat:

17. Develop goals, objectives and criteria to evaluate the efficacy of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity of marine organisms. Consider implementation of MPAs if and where appropriate, giving due consideration to areas already closed to various types of fishing operations. [NRC MPA; EO 13158]
18. Develop a research program to identify regional baseline habitat information and mapping.
19. Evaluate the impacts of all gear on habitat through the implementation of a comprehensive research plan, to determine habitat protection measures as necessary and appropriate.
20. Identify and designate EFH and HAPC.

Allocation Issues:

21. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.
22. Maintain LLP program and further decrease excess fishing capacity and other adverse effects of the race for fish by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries. [NAS SF]
23. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of property rights based on performance.
24. To support fishery management, extend the cost recovery program to all rationalized groundfish fisheries.

Increase Alaska Native Consultation:

25. Continue to incorporate traditional knowledge in fishery management.
26. Consider ways to enhance collection of traditional knowledge from communities, and incorporate such knowledge in fishery management where appropriate.
27. Increase Alaska Native participation and consultation in fishery management.

Data Quality, Monitoring and Enforcement:

28. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.
29. Improve groundfish Observer Program, and consider ways to address the disproportionate costs associated with the current funding mechanism.
30. Improve community and regional economic impact assessments through increased data reporting requirements.
31. Increase the quality of monitoring data through improved technological means.
32. Establish a coordinated, long-term ecosystem monitoring program to collect baseline information and compile existing information from a variety of ongoing research initiatives.
33. Adopt the recommended research plan included in this document.
34. Cooperate with research institutions such as the North Pacific Research Board in identifying research priorities to address pressing fishery issues.

ALTERNATIVE 4

Management Approach

Adopt an extremely precautionary approach to managing fisheries under scientific uncertainty in which the burden of proof is shifted to the user of the resource to demonstrate that the intended use will not have a detrimental effect on the environment. Modify restrictive conservation and management measures as additional, reliable scientific information becomes available. Establish a fishery conservation and management program to maintain ecological relationships among exploited, dependent and related species as well as ecosystem processes that sustain them. Management decisions assume that science cannot eliminate uncertainty and that action must be taken in the face of large uncertainties, guided by policy priorities and the strict interpretation of the precautionary principle. Management decisions will involve and be responsive to the public but decrease emphasis on industry and community concerns; incorporate and apply strict ecosystem principles; address the impact of fishing on predator-prey, habitat and other important ecological relationships in the marine environment; implement measures that avoid or minimize bycatch; include the use of explicit allocative or cooperative programs to reduce excess capacity and allocate fish to particular gear types and fisheries; identify and incorporate non-consumptive-use values; and draw upon federal, state, academic and other capabilities in carrying out research, administration, management, and enforcement. This strategy is based on the assumption that fishing does produce adverse impacts on the environment but due to lack of information and uncertainty, we know little about these impacts. This strategy would result in a number of significant changes to the FMPs that would significantly curtail the groundfish fisheries until more information is known about the frequency and intensity of fishery impacts upon the environment. Expanded research and monitoring programs will fill critical data gaps. Once more is known about fishery effects on the ecosystem, scientific information will be used to modify and relax the precautionary measures initially adopted. To meet the goals of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Prevent overfishing by transitioning from single-species to ecosystem-oriented management of fishing activities.
2. Close an additional 20-50% of known spawning areas of target species across the range of the stock to protect the productivity and genetic diversity.

Preserve Food Web:

3. Develop and implement a Fishery Ecosystem Plan through the modification or amendment of current FMPs. [EPAP, NRC]
4. Conserve native species and biological diversity at all relevant scales of genetic, species, and community interactions.
5. Reduce the ABC to account for uncertainty and ecological considerations for all exploited stocks, including genetic, life history, food web and habitat considerations.
6. Set fishing levels in a highly precautionary manner to preserve ecological relationships between exploited, dependent, and related species.

Reduce and Avoid Bycatch:

7. Include bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, non-target, and PSC bycatch, including unobserved mortality.
8. Reduce bycatch, incidental catch, and PSC limits (e.g., by 10%/year for five years).
9. Phase out fisheries with >25% incidental catch and bycatch rates.
10. Establish PSC limits for salmon, crab and herring in the Gulf of Alaska.
11. Set stringent bycatch limits for vulnerable non-target species based on best available information.

Avoid Impacts to Seabirds and Marine Mammals:

12. Set protection measures immediately for all seabird species and cooperate with USFWS to develop fishing methods that reduce incidental takes to levels approaching zero for all threatened or endangered species and for USFWS's list of species of management concern.
13. Initiate joint research program with USFWS to evaluate current population estimates for all seabird species that interact with the groundfish fisheries and modify protection measures based on research findings.
14. Increase existing protection measures for ESA-listed Steller sea lions by further restricting gear in critical habitat and setting more conservative harvest levels for prey base species.

Reduce and Avoid Impacts to Habitat:

15. Zone and delimit fishing gear use in the action area and establish no-take marine reserves (both pelagic and nearshore) encompassing 20-50% of management areas to conserve EFH, provide refuges from fishing, serve as experimental controls to test the effects of fisheries, protect genetic and biological diversity, and foster regeneration of depleted stocks in fished areas.
16. To protect habitat and reduce bycatch, prohibit trawling in fisheries that can be prosecuted with more selective gear types and establish trawl closure areas.
17. Manage fisheries in an explicitly adaptive manner to facilitate learning (including large no-take marine reserves that provide experimental controls).
18. Protect marine habitats, including EFH, HAPC, ESA-designated critical habitats and other identified habitat types.
19. Commit to funding a comprehensive research plan in order to provide baseline habitat atlas.

Allocation Issues:

20. Reduce excess fishing capacity and employ equitable allocative or cooperative programs to end the race for fish, reduce waste, increase safety, and promote long-term stability and benefits to fishing communities.
21. Consider non-consumptive use values.

Increase Alaska Native Consultation:

22. Utilize traditional knowledge in fishery management, including monitoring and data-gathering capabilities, through co-management and cooperative research programs.
23. Increase participation of and consultation with Alaska Native subsistence users and explicitly address the direct, indirect and cumulative fishery impacts on traditional subsistence uses and cultural values of living marine resources.

Data Quality, Monitoring and Enforcement:

24. Increase the precision of observer data through increased observer coverage and enhanced sampling protocols, and address the shortcomings of the current funding mechanism by implementing either a federally funded or equitable fee-based system for a revamped Observer Program Research Plan.
25. Improve enforcement and in-season management through improved technological means.
26. Establish a coordinated, long-term monitoring program to collect baseline information and better utilize existing research information to improve implementation of the Fishery Ecosystem Plan.
27. Adopt the recommended research plan included in this document.

KEY:

ABC	Acceptable Biological Catch
AFA	American Fisheries Act
BSAI	Bering Sea and Aleutian Islands
D	Discretionary (if no indication, action is discretionary)
EFH	Essential Fish Habitat
EO	Executive Order
EPAP	Ecosystem Principles Advisory Panel Recommendations on Ecosystem-Based Management
ESA	Endangered Species Act
FCMA	Fishery Conservation and Management Act (now called the Magnuson Stevens Act)
FMP	Fishery Management Plan
GOA	Gulf of Alaska
HAPC	Habitat Areas of Particular Concern
IR/IU	Improved Retention/Improved Utilization
M	Mandatory
MSA	Magnuson Stevens Fishery Conservation and Management Act
MSA NS#	MSA National Standard #
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
NAS SF	National Academy of Sciences Policy Recommendations for Sustainable Fisheries
NMFS	National Marine Fisheries Service
NMFS BYC	NMFS National Bycatch Plan
NPFMC	North Pacific Fishery Management Council
NRC	National Research Council
NRC MPA	National Research Council Marine Protected Areas Report
OFL	Overfishing Level
OY	Optimum Yield
PSC	Prohibited Species Catch
SFA	Sustainable Fisheries Act
TAC	Total Allowable Catch
USFWS	U.S. Fish and Wildlife Service

POSTED ON WEB JUNE 24, 2002

COMPARISON OF FMP FRAMEWORKS FOR SECOND DRAFT ALTERNATIVES

	Alt 1	Alt 2		Alt 3		Alt 4	
	1	2.1	2.2	3.1	3.2	4.1	4.2
TAC-setting Process	- Set ABC < OFL - Sum of TAC has to be within OY range	- Set ABC = OFL - Sum of TAC has to be within OY range	<> - Set ABC < OFL <>- Same as 2.1	- Set ABC < OFL - Set TAC =< ABC for all targets and "other spp." category	<> - Same as 3.1 <>- Same as 3.1	- No changes from Alt 1 - No changes from Alt 1	<> - No changes from Alt 1 <>- TAC = 0 for all species unless fisheries are proven to have no adverse effect on the environment
	- OY specified as range for BSAI: 1.4 - 2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down	- OY specified as range; OY cap = sum of OFL	<> - OY specified as range; OY cap = sum of ABCs	- OY specified as range for BSAI: 1.4 - 2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down (No changes from Alt 1)	<> - No OY range in plan; OY = TAC which is =< ABC TAC is fishery specific	- No OY range in plan; OY = TAC which is =< ABC TAC is fishery specific	<> - OY = 0; No fishery
	- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No changes from Alt 1	- No changes from Alt 1	- B_{20} rule for prey species (pollock, P.cod, Atka mackerel) (No changes from Alt 1)	- Revise harvest control rule by incorporating a constant buffer	- Set F75 for prey species (pollock, P.cod, Atka mackerel)	- TAC = 0 for all species
	- ABC tier system (Amendment 56)	- OFL management (Amendment 56 OFL definitions with inflection points removed in tiers 1-3)	<> - No changes from Alt 1	- Review F_{40} and adapt ABC tier system where F_{40} is maximum permissible for stocks without estimate of MSY	<> - When possible, biological reference points based on species specific production patterns and ecosystem considerations	- Set F_{60-80} for vulnerable (e.g., long-life, slow-growing) species (will use F_{60} as proxy)	<> - TAC = 0 for all species
	- No directed fishery for forage fish (forage fish ban; Amendment 36/39)	- No forage fish ban	<> - No changes from Alt 1	- No directed fishery for forage fish (forage fish ban, Amendment 36/39; No changes from Alt 1)	<> - Same as 3.1	- No directed fishery for forage fish (forage fish ban, Amendment 36/39; No changes from Alt 1)	<> - Same as 4.1
	- Specify MSSTs for Tier 1-3 stocks	- No changes from Alt 1	<> - No changes from Alt 1	- Identify minimum required elements, resources, cost and a realistic time frame necessary to establish MSSTs for additional stocks and prioritize a list of candidate stocks	<> - Initiate analysis of MSSTs for priority stocks based on the timeframe determined by additional availability of required resources	- Adopt MSSTs appropriate to the harvest policy for each stock, with B_{40} as the limit (rather than the target)	<> - No changes from Alt 1
	- Set group TAC for 'other species'	- No changes from Alt 1	<> - No changes from Alt 1	- Break sharks and skates out of "other species" group for TAC setting (Amendment 63/63) - Develop criteria for breaking out a species from a species complex	<> - Break sharks and skates and additional groups out of "other species" group for TAC setting <> - Develop criteria to bring a non-specified species into a managed category	- Least Abundant Species Aggregate TAC: e.g., TAC of species complex is based on the TAC of the least abundant member of the group - where possible, break species out of the complex	<> - TAC = 0 for all species
	- Precautionary adjustments exist, but vary with uncertainty only in Tier 1	- OFL management only	<> - No changes from Alt 1	- Conduct F_{40} review and adopt appropriate measures	<> - Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC	- Incorporate survey variance and uncertainty in ABC by a survey coefficient of variation for each stock	<> - In the face of uncertainty, set TAC = 0 for all species unless fisheries are proven to have no adverse effect on the environment
	- Develop ecosystem indicators for future use in TAC-setting	- No ecosystem indicators	<> - No changes from Alt 1	- Develop criteria for using key ecosystem indicators in TAC-setting	<> - Adopt, update as necessary, and use ecosystem indicators in TAC-setting	- Evaluate a range of ABCs using the lower bound of a confidence limit to address uncertainties in stock assessment advice	
	- Target species closures when harvest limit reached	- No changes from Alt 1	- No changes from Alt 1	- No changes from Alt 1	- No changes from Alt 1	- No changes from Alt 1	- Harvest limit = 0
Spatial/ Temporal Mgmt of TAC	- Species TAC distributed spatially for all BSAI and GOA species except "other spp."	- No changes from Alt 1	<> - No changes from Alt 1	- No changes from Alt 1	<> - Develop goals, objectives and criteria for allocating TAC in space and time	- Distribute TAC spatially for all GOA species except "other spp.", and for BS pollock by mgmt region	<> - TAC = 0 for all species
MPAs and EFH	- EO13158 description and evaluation of potential MPA areas	- No MPAs	<> - No changes from Alt 1	- Develop MPA efficacy methodology including program goals, objectives and criteria for establishing MPAs and no take marine reserves	<> - 0-20% of BS, AI, GOA as MPAs and no-take marine reserves (e.g., 5% = no take, 15% = MPA) across a range of habitat types	- Establish 20-50% of the management area as no take MPAs covering the full range of marine habitats	<> - 100% closure areas
	- Maintain current closed/restricted areas such as: Walrus Island closures, RKC savings area, Bogoslof area, Pribilof Island closure, Nearshore Bristol Bay closures, Kodiak Type I-III areas, eastern GOA trawl closures	- Repeal current closed/restricted areas such as: Walrus Island closures, RKC savings area, Bogoslof area, Pribilof Island closure, Nearshore Bristol Bay closures, Kodiak Type I-III areas, eastern GOA trawl closures	<> - No changes from Alt 1	- MPAs may include no take areas - Review existing closures such as Sitka Pinnacles to see if these areas qualify for MPAs under established criteria -Could include restrictions of specific gear types or fisheries	- no take areas allow no fishing and serve as research control areas - could encompass existing closures	Example areas in BSAI include: Submarine canyons: Unimak Pass, old Crab Pot sanctuary(into area 512), near Pribilof Islands, AI(SSL CH), SW of St. George, Misty Moon, RKC savings area	
	- Sitka Pinnacles marine reserve	- Repeal Sitka Pinnacles marine reserve	<> - No changes from Alt 1			Example areas in GOA include: Davidson Bank, Shumagin Islands, and region around Kodiak Island (previous crab closure areas), Gulf Shelf breaks, Sitka Pinnacles	
	- Identify and designate EFH and HAPC	- No changes from Alt 1	- No changes from Alt 1	- Identify and designate EFH and HAPC (No changes from Alt 1) [PLACEHOLDER CONTINGENT ON EFH COMMITTEE]	<> - Same as 3.1 [PLACEHOLDER CONTINGENT ON EFH COMMITTEE]	- Establish AI Special Management Area to protect coral/live bottom habitats - Establish 20-50% of the spawning areas as spawning area reserves for exploited species that are fished intensively at spawning time[may be same areas as for MPAs identified above]	<> - 100% closure areas <> - 100% closure areas

COMPARISON OF FMP FRAMEWORKS FOR SECOND DRAFT ALTERNATIVES

	Alt 1	Alt 2		Alt 3		Alt 4	
	1	2.1	2.2	3.1	3.2	4.1	4.2
SSL Measures	- 2002 SSL closures: no fishing in Seguam Pass, 3nm no transit zones around rookeries; trawl and fixed gear closures in nearshore and critical habitat areas	- No changes from Alt 1	<> - No changes from Alt 1	- 2002 SSL closures: no fishing in Seguam Pass; 3nm no transit zones around rookeries; trawl and fixed gear closures in nearshore and critical habitat areas (No changes from Alt 1)	<> - Continue 2002 SSL closures except establish frameworked buffer zones that are based on distance from shore using existing telemetry data; as new data becomes available, buffer zones would be modified accordingly; for purpose of analysis, a 15 mile buffer zone will be used	- Comprehensive trawl exclusion zones to protect all designated SSL critical habitat	<> - 100% closure areas
	- Aleutian Islands (AI) Closures until 2003			- AI Closures (same as Alt 1)	<> - Extend AI Closures		
	- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No changes from Alt 1	<> - No changes from Alt 1	- B_{20} rule for prey species (pollock, P.cod, Atka mackerel) (No changes from Alt 1)	<> - Revise harvest control rule by incorporating a constant buffer	- Set F_{75} for prey species (pollock, P.cod, Atka mackerel)	<> - TAC = 0 for all species
Bycatch and Incidental Catch Restrictions	- PSC limits for herring, crab, halibut and salmon in BSAI, and for halibut in GOA	- Eliminate PSC limits	<> - PSC limits as for Alt 1. - Where sufficient stock status information is available, adjustable PSC limits established based on a percentage of the annual stock status	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-10%)	<> - BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (10-30%)	- BSAI: Reduce PSC limits for herring, crab, salmon, halibut by 30-50%	<> - PSC limit = 0
				- GOA: Establish PSC limits on salmon NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'; establish PSC limits on crab and herring based on biomass or other fishery data;	<> - GOA: Establish PSC limits on salmon NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'; establish PSC limits on crab and herring based on biomass or other fishery data; reduce all by 0-10%	- GOA: Establish PSC limits on salmon NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'; establish PSC limits on crab and herring based on biomass or other fishery data; reduce all by 30-50%	
				- Reduce GOA halibut PSC limit 0-10%	<> - Reduce GOA halibut PSC limit 10-30%		
				- For those PSC species where annual population estimates exist, the Team will explore a mortality rate-based approach to setting limits	- For those PSC species where annual population estimates exist, the Team will explore a mortality rate-based approach to setting limits	- For those PSC species where annual population estimates exist, the Team will explore a mortality rate-based approach to setting limits	
	- IR/IU for pollock, P.cod	- Repeal IR/IU	<> - No changes from Alt 1	- No changes from Alt 1	<> - No changes from Alt 1	- Extend IR/IU to all target species	<> - No incidental catch
	- Current bycatch and incidental catch restrictions - VIP (vessel incentive program) - Demersal Shelf Rockfish (DSR) full-retention	- No bycatch restrictions	<> - Same as 2.1	- Review effectiveness of Coop-managed PSC reduction - Repeal VIP program - Control bycatch by closing hotspot areas when bycatch limits are attained	<> - Incentive program for incidental catch and bycatch reduction, e.g.: (a) Individual Bycatch Quota (b) Harvest Priority (10% of TAC reserved to reward clean fishing) (c) bycatch reduction standards established (d) Coop managed Harvest Priority (0-10% TAC or PSC reserved to reward clean fishing) (e) HMAP	- Reduce bycatch: BSAI: reduce all by 30-50% GOA: reduce all by 30-50% - Bycatch limits for non-target stocks as information becomes available	<> - No incidental catch <> - No bycatch
	- Crab trawl closures - Cook Inlet prohibition for bottom trawl	- Eliminate all closure areas and no Cook Inlet trawl ban	<> - No changes from Alt 1	- No changes from Alt 1	<> - Develop appropriate closure areas in GOA to address bycatch for halibut and/or crab	- Establish gear closure areas and marine reserves to reduce and avoid bycatch	<> - 100% closure areas
	- Inseason bycatch management measures: (a) establishment of fishing seasons for bycatch mgmt (b) herring closures for areas (not fishery)	- Eliminate all inseason bycatch measures	<> - No changes from Alt 1	- No changes from Alt 1	<> - Repeal MRBs and establish a system of caps and quotas	- No changes from Alt 1	<> - No inseason mgmt measures (no fishing)
Seabird Measures	- Take of more than 4 short-tailed albatross within 2 years triggers consultation	- Take of more than 4 short-tailed albatross within 2 years triggers consultation (No changes from Alt 1)	<> - Same as 2.1	- Take of more than 4 short-tailed albatross within 2 years triggers consultation (No changes from Alt 1)	<> - Same as 3.1	- Set protection measures for all seabird species	<> - 100% protection of seabirds from fishing
	- Seabird avoidance measures	- No seabird avoidance measures	<> - Same as 2.1	- Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all threatened or endangered species and other albatrosses	<> - Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all seabird species	- Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take to levels approaching zero for all threatened or endangered species and for USFWS's list of species of management concern	<> - Zero incidental take; No fishery

COMPARISON OF FMP FRAMEWORKS FOR SECOND DRAFT ALTERNATIVES

	Alt 1	Alt 2		Alt 3		Alt 4	
	1	2.1	2.2	3.1	3.2	4.1	4.2
Gear Restrictions and Allocations	- Retain existing no-trawl zones and fixed gear restrictions; Bottom trawl ban in BSAI for pollock	- Eliminate all trawl closure areas and trawl and fixed gear restrictions	<> - No changes from Alt 1	- BSAI prohibition on bottom trawl for pollock	<> - BSAI and GOA prohibition on bottom trawl for pollock	- Prohibit trawling in all fisheries that can be prosecuted with other gear types (e.g., fisheries with > 25% bycatch)	<> - Prohibit all fishing
	- No pot fishing in GOA for sablefish	- No changes from Alt 1	<> - No changes from Alt 1	- No changes from Alt 1 [PLACEHOLDER; CONTINGENT ON EFH COMMITTEE]	<> - Restrict fishing to areas where fishing has previously been concentrated [PLACEHOLDER; CONTINGENT ON EFH COMMITTEE]	- Restrict bottom trawling for flatfish to specific areas: No trawling in areas identified (previous) as MPAs	<> - Prohibit all fishing
	- Retain existing gear restrictions and allocations	- No changes from Alt 1	<> - No changes from Alt 1	- No changes from Alt 1	<> - No changes from Alt 1		
	- Sablefish and P.cod allocated by gear in BSAI; sablefish allocated by gear in GOA	- No changes from Alt 1	<> - No changes from Alt 1	- No changes from Alt 1	<> - No changes from Alt 1	- SEE GEAR RESTRICTIONS ABOVE	<> - Close fisheries with bycatch
Overcapacity	- LLP and moratorium	- Eliminate LLP and moratorium	<> - No changes from Alt 1	- LLP and moratorium (No changes from Alt 1)	<> - Same as 3.1	- Effort-based regulations	<> - Zero fishing effort; No fishery
	- AFA Coops	- AFA Coops (No changes from Alt 1)	<> - Same as 2.1	- Rights-based mgmt, fishery by fishery basis as needed	<> - Rationalize all fisheries	i.e., trip, gear size limits, vessel size and hp limits, limits on tender vessels, seasonal exclusive area registration	
	- CDQ Program	- Repeal CDQ except for pollock and crab	<> - No changes from Alt 1	(a) IFQs (b) Coops (i) community-based (ii) sector-based	- Ensure CDQ program maximizes benefits in rural communities		
	- Sablefish IFQ	- Eliminate Sablefish IFQ	<> - No changes from Alt 1				
	- Community quota shares for sablefish	- No quota share for sablefish	<> - No changes from Alt 1	(c) CDQs (d) Other community-based programs (e.g. halibut community share program as applied to other species)			
		- No further work on rationalization	<> - No changes from Alt 1				
Alaska Native Issues	- Incorporation of traditional knowledge through existing literature - AFSC anthropologist position	- No changes from Alt 1	<> - No changes from Alt 1	- Develop and implement procedures to incorporate traditional knowledge into fisheries management	<> - Incorporate additional traditional knowledge from research	- Initiate cooperative research programs for data gathering and monitoring in order to enhance use of traditional knowledge in fishery management	
	- AP and Council representation	- No changes from Alt 1	<> - No changes from Alt 1	- Increase consultation with Alaska Native and encourage increased participation	<> - Increase consultation with and representation of Alaska Natives in fishery management	- Increase consultation with and encourage participation of subsistence users (native and non-native)	
	- Allow for subsistence uses consistent with Federal Law	- No changes from Alt 1	<> - No changes from Alt 1			- Provide for traditional Native subsistence uses of fish and wildlife within protected areas	<> - No fishing including subsistence in the EEZ
Observer Program	- Fixed 0/30/100% coverage	- Repeal all observer programs except AFA and CDQ	<> - No changes from Alt 1	- Observer coverage same as Alt 1 or modified based on data and compliance needs, and should be scientifically-based	<> - Extend to 100% > 60' CDQ & AFA to stay the same as Alt 1	- Expand level of observer coverage	<> - Same as 4.1
	- 100% for AFA & CDQ catcher boats > 60 ft. and 200% for AFA & CDQ catcher processors and motherships			e.g., random placement, flexibility, variable rate		(a) 100% coverage on vessels (vessels <60' = 30% coverage) (b) 100% hauls are observed	
	- Industry pays for employment related costs	- No changes from Alt 1	<> - No changes from Alt 1	- Address conflict of interest	<> - Same as 3.1	- Address conflict of interest	<> - Same as 4.1
	- OMNI rule	- No changes from Alt 1	<> - No changes from Alt 1	(a) Federal contract funding (annual appropriation); use of contract hires vs. Federal employees		(a) Federal contract funding (annual appropriation)	
	- ATLAS rule	- No changes from Alt 1	<> - No changes from Alt 1	(b) Research Plan (e.g., fee-based)		(b) Research Plan (e.g., fee-based)	
	- 2003 Regulation package	- No changes from Alt 1	<> - No changes from Alt 1	(c) TAC set aside		(c) TAC set aside	
				- Improve sampling stations	<> - Same as 3.1		
				- Improve species identification for non-target	<> - Same as 3.1		
				- Develop uncertainty estimates for target species data	<> - Expand uncertainty estimates to all possible stocks	- Expand uncertainty estimates to all possible stocks (same as Alt 3.2)	<> Same as 4.1
Data and Reporting Requirements	- Current reporting requirements - AFA requires all C-P and Motherships to weigh all pollock catch on NMFS-approved scales - All CDQ Groundfish catch to be weighed on NMFS-approved scales	- No changes from Alt 1 - No at-sea weighing of catch required except under AFA C-Ps	<> - No changes from Alt 1	- Collect and verify economic data through independent third party (accounting firm/other)	<> - Mandatory economic data reporting by vessels and processors, i.e. earnings, expenditure and employment data	- Requirement of motion-compensated scales to weigh all catches at sea or at shore-based processing plants	<> - No fishing
	- Mandatory VMS for Atka mackerel fleet, pollock and P. cod (following June Council action)	- No VMS	<> - No changes from Alt 1	- No changes from Alt 1	<> - No changes from Alt 1	- Mandatory VMS for all groundfish vessels	<> - No fishing
				- Modify VMS to incorporate new technology and system providers	<> - Same as 3.1		